UNITED STATES DISTRICT COURT DISTRICT OF SOUTH CAROLINA CHARLESTON DIVISION

PETER CANTAGALLO and JOANNE) CANTAGALLO,)	
Plaintiffs,)	COMPLAINT
-against -	
3M COMPANY, f/k/a Minnesota) Mining and Manufacturing Co., TYCO) FIRE PRODUCTS L.P.,) CHEMGUARD, INC., BUCKEYE)	MDL No. 2:18-mn-2873-RMG
FIRE EQUIPMENT COMPANY,)	This Document relates to
NATIONAL FOAM, INC., KIDDE- FENWAL, INC., DYNAX) CORPORATION, E.I. DU PONT DE) NEMOURS AND COMPANY, THE) CHEMOURS COMPANY, THE) CHEMOURS COMPANY FC, LLC,) CORTEVA, INC., and DUPONT DE) NEMOURS, INC.)	Case No. 2:20-661-RMG
Defendants.)	

Plaintiffs Peter Cantagallo and Joanne Cantagallo, by and through their attorneys, as and for their complaint against Defendants 3M Company, f/k/a Minnesota Mining and Manufacturing Co., Tyco Fire Products L.P., Chemguard, Inc., Buckeye Fire Equipment Company, National Foam, Inc., Kidde-Fenwal, Inc., Dynax Corporation, E.I. du Pont De Nemours and Company, The Chemours Company, The Chemours Company FC, LLC, Corteva, Inc., and DuPont de Nemours, Inc. (collectively "Defendants"), alleges as follows:

INTRODUCTION

- 1. Plaintiffs bring this action against Defendants for personal injury and loss of consortium because their drinking water has been contaminated by per- and poly-fluoroalkyl substances ("PFAS") related to the use of Aqueous Film Forming Foam ("AFFF"), a fire-fighting foam containing PFAS compounds.
- 2. Defendants manufactured AFFF and/or PFAS for use in AFFF that contaminated and continues to contaminate the environment, yet no Defendant included user warnings to protect the environment or innocent bystanders.
- 3. For decades, the Defendants manufactured and sold AFFF and/or PFAS for use in AFFF, which included surfactants and stabilizers, that was used by the U.S. Navy and the Pennsylvania Air National Guard for use on ships and at military bases, including the former Willow Grove Naval Air Station Joint Reserve Base in Horsham Township, Pennsylvania (the "Willow Grove Base"), and the former Naval Air Warfare Center in Warminster Township, Pennsylvania (the "Warminster Base"). (The Willow Grove Base and the Warminster Base are collectively referred to as the "Bases.")
- 4. The Defendants' AFFF and/or PFAS for use in AFFF is believed to include perfluorooctane sulfonate ("PFOS") and perfluorooctanoic acid ("PFOA"), and/or certain other perfluorinated compounds ("PFCs") that degrade into PFOS or PFOA (PFOS, PFOA and the PFCs that degrade into PFOS or PFOA are hereinafter referred to as "Toxic Surfactants."). The Defendants have not disclosed the precise compositions and formulas for their AFFF and PFAS for use in AFFF during the relevant period.
- 5. PFOS and PFOA have been linked to serious health issues. PFOA and PFOS are associated with a variety of illnesses, including but not limited to, kidney cancer, testicular cancer, ulcerative colitis, thyroid disease, pregnancy induced hypertension (including preeclampsia), and

hypercholesterolemia. The chemicals are particularly dangerous for pregnant women and young children.

- 6. Residents in the area near the Bases, including Plaintiffs, obtained and continue to obtain their drinking water predominantly from groundwater pumped from either municipal or private wells.
- 7. For decades, residents, including children, near the Bases have been drinking and eating food prepared with water laced with dangerous chemicals, namely, PFOS and PFOA.
- 8. As the manufacturers of AFFF and/or PFAS for use in AFFF, the Defendants knew or should have known that the inclusion of Toxic Surfactants in AFFF presented an unreasonable risk to human health and the environment.
- 9. Nonetheless, Defendants marketed and sold their products with the full knowledge that large quantities of Toxic Surfactant-laden AFFF would be used in training exercises and in emergency situations in such a manner that the dangerous chemicals would be introduced, in large quantities, into the environment and migrate into groundwater.
- 10. For years, Plaintiff Peter Cantagallo has been exposed to and has ingested PFOS and PFOA at extremely high and dangerous levels.
- 11. Plaintiff Peter Cantagallo had no way to know that he was consuming water and food contaminated with PFOS and PFOA.

PARTIES

Plaintiffs

12. Plaintiffs are citizens of the Commonwealth of Pennsylvania, who currently reside in Horsham, Pennsylvania.

- 13. From 1983 to 1992 and from 2013 to 2016, Plaintiff Peter Cantagallo lived in Hatboro, Pennsylvania. From 1995 to 1998 and from 2016 to the present, Plaintiff Peter Cantagallo lived in Horsham, Pennsylvania.
- 14. While residing in Hatboro and Horsham, Plaintiff Peter Cantagallo drank water provided by the municipal water providers.
- 15. During the time Plaintiff Peter Cantagallo resided in Hatboro and Horsham, his drinking water was contaminated with PFAS.
- 16. As a result of his exposure to drinking water contaminated with PFAS, Plaintiff Peter Cantagallo developed ulcerative colitis.
- 17. As a result of his exposure to drinking water contaminated with PFAS, Plaintiff
 Peter Cantagallo has experienced pain and suffering and a diminished quality of life.
- 18. As a result of Plaintiff Peter Cantagallo's ulcerative colitis, Plaintiff Joanne Cantagallo has suffered a loss of services, society, and conjugal affection from her spouse.
- 19. Plaintiffs commenced this action by filing a Praecipe for Writ of Summons in Montgomery County Court in Pennsylvania. Pursuant to Case Management Order No.3 entered by this Court in *In Re: Aqueous Film-Forming Foams Products Liability Litigation*, MDL No. 2:18-mn-2873-RMG, and a stipulation with Defendants named on the writs, Plaintiff are directly filing this complaint into this MDL.

Defendants

20. Defendant 3M Company ("3M") is a Delaware corporation with its principal place of business at 3M Center, St. Paul, Minnesota 55144. 3M does business throughout the United States, including conducting business in Pennsylvania. At all times relevant, 3M manufactured,

marketed, promoted, distributed, and/or sold AFFF containing PFOA and/or PFOS used to fight fires at numerous military bases and other locations throughout the country.

- 21. Beginning before 1970 and until at least 2002, 3M manufactured, distributed and sold AFFF-containing PFCs, that included but was not limited to PFOA and PFOS.
- 22. 3M designed, distributed, manufactured and/or sold AFFF-containing PFAS and/or PFAS constituents in AFFF that was used at the Bases.
- 23. Defendant Tyco Fire Products, LP ("Tyco") is a limited partnership organized and existing under the laws of the State of Delaware, having its principal place of business at One Stanton Street, Marinette, Wisconsin. Tyco does business throughout the United States, including conducting business in Pennsylvania.
- 24. Tyco manufactures the Ansul brand of products and is the successor-in-interest to the corporation formerly known as The Ansul Company ("Ansul") (hereinafter, Ansul and/or Tyco as the successor-in-interest to Ansul will be referred to collectively as "Tyco/Ansul").
- 25. At all times relevant, Tyco/Ansul manufactured, marketed, promoted, distributed, and/or sold fire suppression products, including AFFF, that contained fluorocarbon surfactants containing PFCs.
- 26. Beginning in or around 1975, Ansul manufactured and/or distributed and sold AFFF that contained PFCs, that included but was not limited to PFOA and PFOS. After Tyco acquired Ansul in 1990, Tyco/Ansul continued to manufacture, distribute and sell AFFF that contained PFCs, that included but was not limited to PFOA and PFOS.
- 27. Tyco/Ansul designed, distributed, manufactured and/or sold AFFF-containing PFAS and/or PFAS constituents in AFFF that was used at the Bases.

- 28. Defendant Chemguard Inc. ("Chemguard") is a corporation organized under the laws of the State of Texas, with its principal place of business located at One Stanton Street, Marinette, Wisconsin 54143. Chemguard does business throughout the United States, including conducting business in Pennsylvania. At all times relevant, Chemguard manufactured, marketed, promoted, distributed, and/or sold AFFF that contained PFOA, PFOS, and other toxic substances.
- 29. Chemguard designed, distributed, manufactured and/or sold AFFF-containing PFAS and/or PFAS constituents in AFFF that was used at the Bases.
- 30. Defendant Buckeye Fire Equipment Company ("Buckeye Fire") is a corporation organized and existing under the laws of the state of Ohio, with its principal place of business at 110 Kings Road, Kings Mountain, North Carolina 28086. Buckeye does business throughout the United States, including conducting business in Pennsylvania. At all times relevant, Buckeye Fire manufactured, marketed, promoted, distributed, and/or sold AFFF that contained PFOA, PFOS, and other toxic substances.
- 31. Buckeye designed, distributed, manufactured and/or sold AFFF-containing PFAS and/or PFAS constituents in AFFF that was used at the Bases.
- 32. Defendant National Foam, Inc., (a/k/a Chubb National Foam) (collectively "National Foam") is a Delaware corporation, having a principal place of business at 141 Junny Road, Angier, North Carolina 27501. National Foam is the successor in interest to Angus Fire Armour Corporation, and manufactures the Angus brand of products. National Foam does business throughout the United States, including conducting business in Pennsylvania. References to "National Foam" herein shall also refer to AFFF commercially manufactured, marketed and sold under the "Angus" name and "Angus Fire" brand.

- 33. At all times relevant, National Foam manufactured, marketed, promoted, distributed, and/or sold fire suppression products, including AFFF, that contained fluorocarbon surfactants containing PFCs.
- 34. National Foam designed, distributed, manufactured and/or sold AFFF-containing PFAS and/or PFAS constituents in AFFF that was used at the Bases.
- 35. Defendant Kidde-Fenwal, Inc. ("Kidde"), is a corporation organized under the laws of the State of Delaware, with its principal place of business located at One Financial Plaza, Hartford, Connecticut 06101. Kidde is the successor-in-interest to Kidde Fire Fighting, Inc. (f/k/a Chubb National Foam, Inc. f/k/a National Foam System, Inc.). Kidde does business throughout the United States, including conducting business in Pennsylvania.
- 36. Kidde designed, distributed, manufactured and/or sold AFFF-containing PFAS and/or PFAS constituents in AFFF that was used at the Bases.
- 37. Defendant Dynax Corporation ("Dynax") is a Delaware Corporation that conducts business throughout the United States, including business in Pennsylvania. Its principal place of business is 103 Fairview Park Drive Elmsford, New York, 10523-1544.
- 38. In 1991, Dynax Corporation entered the AFFF business, quickly becoming a leading global producer of fluorosurfactants and fluorochemical foam stabilizers used in firefighting foam agents.
- 39. Dynax designed, distributed, manufactured and/or sold AFFF-containing PFAS and/or PFAS constituents in AFFF that was used at the Bases.
- 40. Defendant E.I. du Pont De Nemours & Co. is a Delaware Corporation and does business throughout the United States, including conducting business in Pennsylvania. Its principal place of business is 974 Centre Road, Wilmington, Delaware 19805.

- 41. E.I. du Pont De Nemours & Co. designed, distributed, manufactured and/or sold AFFF-containing PFAS and/or PFAS constituents in AFFF that was used at the Bases.
- 42. Defendant The Chemours Company is a Delaware Corporation and conducts business throughout the United States, including conducting business in Pennsylvania. Its principal place of business is 1007 Market Street, Wilmington, Delaware, 19899.
- 43. The Chemours Company designed, distributed, manufactured and/or sold AFFF-containing PFAS and/or PFAS constituents in AFFF that was used at the Bases.
- 44. The Chemours Company was incorporated as a subsidiary of E.I. du Pont De Nemours & Co. as of April 30, 2015. From that time until July 2015, The Chemours Company was a wholly-owned subsidiary of E.I. du Pont De Nemours & Co. In July 2015, E.I. Du Pont de Nemours & Co. spun off The Chemours Company and transferred to The Chemours Company its "performance chemicals" business line, which includes its fluoroproducts business, distributing shares of The Chemours Company stock to E.I. du Pont De Nemours & Co. stockholders, and The Chemours Company has since been an independent, publicly traded company.
- 45. Defendant The Chemours Company FC, LLC is a Delaware Corporation and conducts business throughout the United States including conducting business in Pennsylvania. Its principal place of business is 1007 Market Street, Wilmington, Delaware, 19899.
- 46. The Chemours Company FC, LLC designed, distributed, manufactured and/or sold AFFF-containing PFAS and/or PFAS constituents in AFFF that was used at the Bases.
- 47. The Chemours Company and The Chemours Company FC, LLC are collectively referred to throughout this Complaint as "Chemours."
- 48. E.I. du Pont De Nemours & Co. merged with The Dow Chemical Company in August 2017 to create DowDuPont Inc. ("DowDuPont"). E.I. du Pont De Nemours & Co. and

The Dow Chemical Company each merged with wholly-owned subsidiaries of DowDuPont and, as a result, became subsidiaries of DowDuPont. Since that time, DowDuPont has effected a series of separation transactions to separate its businesses into three independent, publicly-traded companies for each of its agriculture, materials science, and specialty products businesses, discussed below.

- 49. Defendant Corteva, Inc. ("Corteva") is a Delaware corporation with its principal place of business at 974 Centre Road, Wilmington, Delaware. Corteva does business throughout the United States, including conducting business in Pennsylvania.
- 50. Corteva designed, distributed, manufactured and/or sold AFFF-containing PFAS and/or PFAS constituents in AFFF that was used at the Bases.
- 51. On June 1, 2019, DowDuPont separated its agriculture business through the spin-off of Corteva, Inc.
- 52. Corteva, Inc. was initially formed in February 2018. From that time until June 1, 2019, Corteva was a wholly-owned subsidiary of DowDuPont.
- 53. On June 1, 2019, DowDuPont distributed to DowDuPont stockholders all issued and outstanding shares of Corteva, Inc. common stock by way of a pro rata dividend. Following that distribution, Corteva, Inc. is the direct parent of E. I. du Pont de Nemours & Co. and holds certain DowDuPont assets and liabilities, including DowDuPont's agriculture and nutritional businesses.
- 54. Defendant DuPont de Nemours, Inc. (f/k/a DowDuPont Inc.) is a Delaware corporation with its principal place of business at 974 Centre Road, Wilmington, Delaware 19805. DuPont de Nemours, Inc. does business throughout the United States, including conducting business in Pennsylvania.

- 55. DuPont de Nemours, Inc. designed, distributed, manufactured and/or sold AFFF-containing PFAS and/or PFAS constituents in AFFF that was used at the Bases.
- 56. On June 1, 2019, DowDuPont, the surviving entity after the spin-off of Corteva, Inc. and of another entity known as Dow, Inc., changed its name to DuPont de Nemours, Inc., to be known as DuPont ("New DuPont"). New DuPont retained assets in the specialty products business lines following the above described spin-offs, as well as the balance of the financial assets and liabilities of E.I DuPont not assumed by Corteva, Inc.
- 57. Defendants E. I. du Pont de Nemours and Company; The Chemours Company; The Chemours Company FC, L.L.C; Corteva, Inc.; and DuPont de Nemours, Inc. are collectively referred to as "DuPont" throughout this Complaint.
- 58. Some or all of the AFFF manufactured and sold by the Defendants contained fluorosurfactants manufactured and sold by DuPont.
- 59. 3M Company; Tyco Fire Products L.P; Chemguard, Inc.; Buckeye Fire Equipment Company; National Foam, Inc.; Kidde-Fenwal, Inc.; Dynax, Inc.; E.I. Du Pont de Nemours and Company; The Chemours Company; The Chemours Company FC, LLC; Corteva, Inc.; and DuPont de Nemours, Inc. are collectively referred to as "Defendants."
- 60. Defendants, among other things: (a) designed, manufactured, formulated, promoted, marketed, sold, and/or otherwise supplied (directly or indirectly) PFAS-containing AFFF and/or PFAS for use in AFFF that was delivered into areas affecting Plaintiffs' water supply, such that AFFF-related PFAS have contaminated Plaintiffs' water supply; (b) acted with actual or constructive knowledge that PFAS-containing AFFF and/or PFAS for use in AFFF would be delivered into areas affecting Plaintiffs' water supply; (c) are legally responsible for and committed each of the multiple tortious and wrongful acts alleged in this Complaint; and (d) promoted PFAS-

containing AFFF and/or PFAS for use in AFFF, despite the availability of reasonable alternatives and their actual or constructive knowledge that the contamination alleged in this Complaint would be the inevitable result of their conduct.

- 61. When reference is made in this Complaint to any act or omission of any of the Defendants, it shall be deemed that the officers, directors, agents, employees, or representatives of the Defendants committed or authorized such act or omission, or failed to adequately supervise or properly control or direct their employees while engaged in the management, direction, operation, or control of the affairs of Defendants, and did so while acting within the scope of their duties, employment, or agency.
- 62. Any and all references to a Defendant or Defendants in this Complaint include any predecessors, successors, parents, subsidiaries, affiliates, and divisions of the named Defendants.

JURISDICTION AND VENUE

- 63. This Court has jurisdiction pursuant to 28 U.S.C. § 1332(a) because the parties are diverse and the amount in controversy exceeds \$75,000.
- 64. Plaintiffs are direct-filing this Complaint in the United States District Court for the District of South Carolina as permitted by Case Management Order No.3 entered by this Court in *In Re: Aqueous Film-Forming Foams Products Liability Litigation*, MDL No. 2:18-mn-2873-RMG.
- 65. The United States District Court for the Eastern District of Pennsylvania is the proper venue of origin where Plaintiffs' claims could have otherwise been brought pursuant to 28 U.S.C. § 1391.
- 66. The United States District Court for the Eastern District of Pennsylvania is the proper "home venue" because, based on information and belief, each Defendant is a corporation

or other business that has sufficient minimum contacts in Pennsylvania or otherwise intentionally avails itself of the Pennsylvania market either through the distribution or sale of AFFF products in the Commonwealth of Pennsylvania so as to render the exercise of jurisdiction over it by this Court consistent with traditional notions of fair play and substantial justice.

- 67. Further, venue is also proper in the United States District Court for the Eastern District of Pennsylvania under 28 U.S.C. § 1391(b)(2) because the events, omissions, and harms that are the basis of Plaintiffs' claims occurred in substantial part in this judicial district.
- 68. Plaintiffs bring causes of action based solely on and arising under Pennsylvania Law. The claims of Plaintiffs are for violations of Pennsylvania law that occurred exclusively in the Commonwealth of Pennsylvania.

GENERAL FACTUAL ALLEGATIONS

- A. PFOA and PFOS, Their Chemical Characteristics, and Risk in Groundwater
- 69. Poly- and perfluoroalkyl substances (collectively "PFAS compounds") are terms used to describe a group of organic fluororinated alkanes. PFAS compounds have been used for decades to produce household and commercial products that are heat resistant, stain resistant, long lasting, and water and oil repellant.
- 70. There are six long-chain PFAS compounds, which are divided into two subcategories: (1) long-chain perfluoroalkyl carboxylic acids (PFCAs) like PFOA, and (2) perfluoroalkane sulfonates (PFSAs), including perfluorohexane sulfonate (PFHxS) and PFOS. PFOS and PFOA compounds are the most toxic manmade chemicals of the PFAS family.
- 71. PFOS and PFOA are characterized by a carbon-fluorine ("C-F") bond that is one of the strongest chemical bonds that occurs. PFOS and PFOAs are extremely persistent in the environment and in the human body, and have the potential to bioaccumulate and biomagnify in

wildlife. Bioaccumulation appears to be related to the length of the C-F chain; as the size of the chain increases, the compound becomes more bioaccumulative.

- PFOS and PFOA have unique characteristics that cause extensive and persistent environmental contamination. Specifically, they are (1) mobile—that is, because they do not adsorb (stick) to soil particles, they are readily transported through the soil and into groundwater where they can migrate long distances; and (2) persistent—that is, they do not readily biodegrade or chemically degrade in the environment or in conventional treatment systems for drinking water. In short, once PFOS and/or PFOA are applied, discharged, disposed of, or otherwise released onto land, those compounds migrate through the subsurface and into groundwater, resist natural degradation, and are difficult and costly to remove from water.
- 73. PFOA and PFOS contamination presents a significant threat to public health and welfare. PFOA is readily absorbed in the body after consumption or inhalation, and it accumulates primarily in the blood stream, kidney, and liver. Studies have shown that exposure to fluorochemicals that contain eight carbons or more ("C8"), such as PFOS and PFOA, may cause testicular cancer, kidney cancer, ulcerative colitis, thyroid disease, pregnancy induced hypertension (including preeclampsia, a serious pregnancy complication).
- 74. There also have been studies linking C8s with autoimmune and endocrine disorders, elevated cholesterol, increased liver enzymes, and decreased vaccination response.
 - 75. These injuries may arise within months or years after exposure to PFOS or PFOA.

76. Under the U.S. Environmental Protection Agency's ("EPA") Guidelines for Carcinogen Risk Assessment, there is "Suggestive Evidence of Carcinogenic Potential" for PFOS and PFOA in humans.¹

B. Defendants' History of Production of PFOA/PFOS and Commercialization of AFFF

- 77. 3M began producing PFOA as part of a process called electrochemical fluorination (ECF) in the 1940s. This process results in a product that contains and/or breaks down into compounds containing PFOA and/or PFOS.
- 78. For most of the past 30 years, the primary manufacturer of PFOS and PFOA has been 3M, through its supply of AFFF.
- 79. In the 1960s, 3M began developing Class B AFFF to be used at airports and military bases for firefighting and explosion drills. AFFF was created to extinguish Class B fires, which are fueled by flammable liquid, and particularly difficult to fight using traditional methods of extinguishing fires. Class B fires cannot be safely extinguished with water.
- 80. AFFFs are synthetically formed by combining fluorine free hydrocarbon foaming agents with highly fluorinated surfactants. When mixed with water, a solution forms producing aqueous film that spreads across the surface of a hydrocarbon fuel. This film formation feature is what provides the fire extinguishment.
- 81. 3M manufactured, marketed, and sold AFFF and the raw materials for production of AFFF from the 1960s to the early 2000s.

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¹ U.S. Environmental Protection Agency Office of Water Health and Ecological Criteria Division, Drinking Water Health Advisory for Perfluorooctanoic Acid (PFOA) (May 2016), https://www.epa.gov/sites/production/files/2016-05/documents/pfoa_health_advisory_final-plain.pdf

- 82. National Foam and Tyco/Ansul began to manufacture, market, and sell AFFF in the 1970s.
- 83. Angus Fire and Chemguard began to manufacture, market, and sell AFFF in the 1990s.
- 84. Dynax began to manufacture, market, and sell the raw materials for production of AFFF in the 1990s and quickly became a leading global producer of fluorosurfactants and fluorochemical foam stabilizers used in firefighting foam agents.
 - 85. Buckeye began to manufacture, market, and sell AFFF in the 2000s.
- 86. After its creation in the 1960s and entrance into the commercial market, AFFF was utilized by the Department of Defense and the U.S. Navy to extinguish fuel-based fires during routine military drills. AFFF was also used in hundreds of bases across the country.
- 87. Beginning in 1951, DuPont began purchasing PFOA from 3M for use in the manufacturing process for its name-brand product Teflon®, commonly known for its use as a coating for non-stick cookware.
- 88. In 2000, 3M announced it would phase out and find substitutes for its PFOS chemistry.
- 89. In 2001, DuPont became a founding member of the Fire Fighting Foam Coalition ("FFFC").
- 90. In part, through its involvement in the FFFC, DuPont actively marketed its fluorosurfactants to AFFF manufacturers for use in the production of AFFF.
- 91. Some or all of the AFFF manufactured and sold by the Defendants contained fluorosurfactants manufactured and sold by DuPont.

- 92. In response to pressure from the EPA, 3M began to phase out production of PFOS and PFOA products in 2000.
- 93. On May 16, 2000, 3M issued a news release asserting that "our products are safe," citing the company's "principles of responsible environmental management" as the reason to cease production.
- 94. On the same day as 3M's phase out announcement, an EPA press release stated: "3M data supplied to EPA indicated that these chemicals are very persistent in the environment, have a strong tendency to accumulate in human and animal tissues and could potentially pose a risk to human health and the environment over the long term."
- 95. In a memo explaining its decision, EPA stated that PFOS "appears to combine Persistence, Bioaccumulation, and Toxicity property to an extraordinary degree."
- 96. After 3M exited the AFFF market, the remaining Defendants continued to manufacture and sell AFFF.
- 97. The Defendants knew their customers warehoused large stockpiles of AFFF and touted the shelf-life of AFFF.
- 98. While the Defendants phased out production or transitioned to new formulas of AFFF, they did not instruct users of AFFF that they should not use AFFF that contained PFOS, PFOA, PFNA and/or PFHxS, and/or their precursors.
 - 99. The Defendants further did not act to remove AFFF from the stream of commerce.
- 100. The Defendants did not warn public entities or others that AFFF would harm the environment, endanger human health, or cause them to incur substantial costs to investigate and clean up contamination of public water drinking wells.

- 101. Accordingly, for many years after the original sale of AFFF, these AFFF products were and are still being applied directly to the ground, discharged into floor drains and washed into sediments, soils and waters, contaminating public drinking water wells and endangering human health.
- 102. The Defendants did not properly instruct users, consumers, public officials or those who were in a position to properly guard against the dangers of PFAS that they needed to properly dispose of their stockpiles of AFFF or how to properly dispose of AFFF.

1. 3M's Knowledge of the Dangers of PFAS

- 103. In the 1950s, based on its own internal studies, 3M concluded that PFAS are "toxic."
- 104. 3M knew as early as the mid-1950s that PFAS bioaccumulate in humans and animals.
- 105. By the early 1960s, 3M understood that some PFAS are stable and persist in the environment and that they do not degrade.
- 106. 3M knew as early as 1960 that chemical wastes from its PFAS manufacturing facilities that were dumped to landfills could leach into groundwater and otherwise enter the environment.
- 107. An internal memo from 1960 described 3M's understanding that such wastes "[would] eventually reach the water table and pollute domestic wells."
- 108. As early as 1963, 3M was aware that its PFAS products were stable in the environment and would not degrade after disposal.
- 109. 3M began monitoring the blood of its employees for PFAS, as early as 1976, because 3M was concerned about health effects of PFAS.

- 110. 3M documents from 1977 relating to these worker tests further confirm that PFAS bioaccumulate.
- 111. By at least 1970, 3M was aware that its PFAS products were hazardous to marine life.
- 112. In 1975, 3M found there was a "universal presence" of PFOA in blood serum samples taken from across the United States.
- 113. Since PFOA is not naturally occurring, this finding reasonably should have alerted 3M to the likelihood that its products were a source of this PFOA—a possibility that 3M considered internally but did not share outside the company.
- 114. This finding also should have alerted 3M to the likelihood that PFOA is mobile, persistent, bioaccumulative, and biomagnifying, as those characteristics would explain the presence of PFOA in blood from 3M's products.
 - 115. Other studies by 3M in 1978 showed that PFOA and PFOS are toxic to monkeys.
- 116. In the late 1970s, 3M studied the fate and transport characteristics of PFOS in the environment.
- 117. 3M resisted calls from its own ecotoxicologists going back to 1979 to perform an ecological risk assessment on PFOS and similar chemicals.
 - 118. 3M's own ecotoxicologists continued raising concerns to 3M until at least 1999.
- 119. In 1983, 3M scientists opined that concerns about PFAS "give rise to legitimate questions about the persistence, accumulation potential, and ecotoxicity of [PFAS] in the environment."
- 120. In 1984, 3M's internal analyses demonstrated that PFAS were likely bioaccumulating in 3M fluorochemical employees.

- 121. 3M's own employees recognized that 3M was concealing known dangers relating to PFAS. For example, in a 1999 resignation letter, an employee stated that "I can no longer participate in the process that 3M has established for the management of [PFAS]. For me, it is unethical to be concerned with markets, legal defensibility and image over environmental safety."
- 122. In response to pressure from the U.S. EPA, 3M began to phase out production of PFOS and PFOA products in 2000.
- 123. On May 16, 2000, 3M issued a news release asserting that "our products are safe," citing the company's "principles of responsible environmental management" as the reason to cease production.
- 124. On the same day as 3M's phase out announcement, an EPA press release stated: "3M data supplied to EPA indicated that these chemicals are very persistent in the environment, have a strong tendency to accumulate in human and animal tissues and could potentially pose a risk to human health and the environment over the long term."
- 125. 3M knew or should have known that in their intended and/or common use, products containing PFAS would very likely injure and/or threaten public health and contaminate Plaintiffs' drinking water.
- 126. Despite overwhelming studies to the contrary, 3M, to this day, publicly claims that "[w]e do not believe that PFOS and PFOA cause harm to human health at levels that are typically found in the environment" and that "[w]e do not believe there is a public health issue related to PFOA and PFOS."

2. DuPont's Knowledge of the Dangers of PFAS

127. DuPont company scientists issued internal warnings about the toxicity associated with their PFOA products as early as 1961.

- 128. DuPont's Toxicology Section Chief opined that such products should be "handled with extreme care," and that contact with the skin should be "strictly avoided."
- 129. In 1978, based on information it received from 3M about elevated and persistent fluorine levels in workers exposed to PFOA, DuPont initiated a plan to review and monitor the health conditions of potentially exposed workers in order to assess whether any negative health effects could be attributed to PFOA exposure.
- 130. This monitoring plan involved obtaining blood samples from the workers and analyzing them for the presence of fluorine.
- 131. By 1979, DuPont had data indicating that its workers exposed to PFOA had a significantly higher incidence of health issues than did unexposed workers.
- 132. DuPont did not report this data or the results of its worker health analysis to any government agency or community.
- 133. The following year, DuPont internally confirmed that PFOA "is toxic," that humans accumulate PFOA in their tissue, and that "continued exposure is not tolerable."
- 134. Not only did DuPont know that PFOA bioaccumulates in humans, but it was also aware that PFOA could cross the placenta from an exposed mother to her gestational child.
- 135. In fact, DuPont had reported to EPA in March 1982 that results from a rat study showed PFOA crossing the placenta if present in maternal blood, but DuPont concealed the results of internal studies of its own plant workers.
- 136. While DuPont knew about this toxicity danger as early as the 1960s, DuPont also was aware that PFAS was capable of contaminating the surrounding environment.
 - 137. Further, no later than 1984, DuPont was aware that PFOA is biopersistent.

- 138. DuPont was long aware that the PFAS it was releasing from its facilities was leaching into groundwater used for public drinking water.
- 139. After obtaining data on these releases and the consequent contamination near DuPont's plant in West Virginia, DuPont, in 1984, held a meeting at its corporate headquarters in Wilmington, Delaware, to discuss health and environmental issues related to PFOA (the "1984 Meeting").
- 140. DuPont employees who attended the 1984 Meeting discussed available technologies that were capable of controlling and reducing PFOA releases from its manufacturing facilities, as well as potential replacement materials.
- 141. DuPont chose not to use either available technologies or replacement materials, despite knowing of PFOA's toxicity.
- 142. During the 1984 Meeting, DuPont employees in attendance spoke of the PFOA issue as "one of corporate image, and corporate liability."
- 143. They were resigned to DuPont's "incremental liability from this point on if we do nothing" because DuPont was "already liable for the past 32 years of operation."
- 144. They also stated that the "legal and medical [departments within DuPont] will likely take the position of total elimination" of PFOA use in DuPont's business, and that these departments had "no incentive to take any other position."
- 145. DuPont's own Epidemiology Review Board ("ERB") repeatedly raised concerns about DuPont's statements to the public that there were no adverse health effects associated with human exposure to PFOA.
- 146. For example, in February 2006, the ERB "strongly advise[d] against any public statements asserting that PFOA does not pose any risk to health" and questioned "the evidential

basis of [DuPont's] public expression asserting, with what appears to be great confidence, that PFOA does not pose a risk to health."

147. DuPont knew or should have known that in their intended and/or common use, products containing PFAS would very likely injure and/or threaten public health and the environment in Pennsylvania near Plaintiffs' residence.

3. Other Defendant's Knowledge of the Dangers of PFAS

- 148. Tyco/Ansul, Chemguard, Buckeye, Kidde/Kidde Fire, Dynax, and National Foam/Angus Fire knew, or at the very least should have known, that in their intended and/or common use, their AFFF and/or PFAS products would harm the environment and human health, including causing harm to Plaintiff Peter Cantagallo.
- 149. Tyco/Ansul, Chemguard, Buckeye, Kidde/Kidde Fire, Dynax, and National Foam/Angus Fire knew, or at the very least should have known that, their AFFF and/or PFAS products would contaminate Plaintiff Peter Cantagallo's water supply and cause him to suffer injuries.
- 150. Information regarding PFAS compounds was readily accessible to each of the above-referenced Defendants for decades because each is an expert in the field of AFFF manufacturing and/or the materials needed to manufacture AFFF, and each has detailed information and understanding about the chemical compounds that form AFFF products.
- 151. The Firefighting Foam Coalition ("FFFC"), an AFFF trade group, was formed in 2001 to advocate for AFFF's continued viability.
- 152. DuPont, which as is described above had extensive knowledge about the toxicity associated with PFAS, was a member of the FFFC.

- 153. All of the Defendants, with the exception of 3M, were members of the FFFC ("FFFC Defendants").
- 154. Through their involvement in the FFFC, as well as a variety of other trade associations and groups, FFFC Defendants shared knowledge and information regarding PFOA.
 - 155. The FFFC Defendants worked together to protect AFFF from scrutiny.
 - 156. Their close cooperation included messaging on PFOA's toxicological profile.
- 157. The FFFC's efforts were designed to shield its members and the AFFF industry from the detrimental impact of the public and regulators learning about the harms of PFOA to human health and the environment.
- 158. FFFC Defendants regularly published newsletters and attended conferences bolstering their AFFF products.
- 159. These coordinated efforts by the FFFC Defendants were meant to dispel concerns about the impact AFFF had on the environment and human health. They worked in concert to conceal known risks of their AFFF from the government and public.
- 160. FFFC Defendants repeated the same message for years: Only one PFAS chemical, PFOS, had been taken off the market. Since the FFFC Defendants' products did not contain PFOS, they claimed their products were safe.
- 161. FFFC Defendants knew the use of their AFFF products presented a similar threat to human health and the environment.
- 162. While this was known to FFFC Defendants, it was not fully understood by the users of AFFF, the public and Plaintiffs.

4. **DuPont's Spinoff of Chemours**

- 163. In February 2014, DuPont formed The Chemours Company as a wholly-owned subsidiary.
- 164. In July 2015, DuPont used Chemours to spin off its "performance chemicals" business line.
- 165. At the time of the spinoff, the performance chemicals division consisted of DuPont's Titanium Technologies, Chemical Solutions and Fluorochemicals segments (the "Performance Chemicals Business").
- 166. Until the spinoff was complete, Chemours was a wholly-owned subsidiary of DuPont. Although Chemours had a separate board, the board was controlled by DuPont employees.
- 167. Prior to the spinoff of Chemours, in 2005, DuPont agreed to pay \$10.25 million to resolve eight counts brought by the EPA alleging violations of the Toxic Substances Control Act ("TSCA") and the Resource Conservation and Recovery Act ("RCRA") concerning the toxicity of PFAS compounds. At the time, it was the largest such penalty in history.
 - 168. DuPont also promised to phase out production and use of PFOA by 2015.
- 169. Also in 2005, DuPont settled a class action lawsuit filed on behalf of 70,000 residents of Ohio and West Virginia for \$343 million.
- 170. Under the terms of the 2005 class action settlement, DuPont agreed to fund a panel of scientists to determine if any diseases were linked to PFOA exposure, to filter local water for as long as C-8 concentrations exceeded regulatory thresholds, and to set aside \$235 million for ongoing medical monitoring of the affected community.
- 171. After 8 years, the C-8 Science Panel found several significant diseases, including cancer, linked to PFOA.

- 172. Once the spinoff was complete, seven new members of the Chemours board were appointed, for an eight member board of directors of the new public company.
- 173. The new independent board appointed upon the completion of the spinoff did not take part in the negotiations of the terms of the separation.
- 174. In addition to the transfer of assets, Chemours accepted broad assumption of liabilities for DuPont's historical use, manufacture, and discharge of PFAS, although the specific details regarding the liabilities that Chemours assumed are set forth in the non-public schedules.
- 175. Within the publicly available information about the transfer is the fact that Chemours agreed to indemnify DuPont against, and assumed for itself, all "Chemours Liabilities," which is defined broadly to include, among other things, "any and all liabilities relating," "primarily to, arising primarily out of or resulting primarily from, the operation of or conduct of the [Performance Chemicals] Business at any time."
- 176. Chemours agreed to indemnify DuPont against and assume for itself the Performance Chemical Business' liabilities regardless of: (i) when or where such liabilities arose; (ii) whether the facts upon which they are based occurred prior to, on, or subsequent to the effective date of the spinoff; (iii) where or against whom such liabilities are asserted or determined; (iv) whether arising from or alleged to arise from negligence, gross negligence, recklessness, violation of law, fraud or misrepresentation by any member of the DuPont group or the Chemours group; and (v) which entity is named in any action associated with any liability.
- 177. Chemours agreed to indemnify DuPont from, and assume all, environmental liabilities that arose prior to the spinoff if they were "primarily associated" with the Performance Chemicals Business.

- 178. Such liabilities were deemed "primarily associated" if DuPont reasonably determined that 50.1% of the liabilities were attributable to the Performance Chemicals Business.
- 179. Chemours also agreed to use its best efforts to be fully substituted for DuPont with respect to "any order, decree, judgment, agreement or Action with respect to Chemours Assumed Environmental Liabilities"
- 180. In addition to the assumption of such liabilities, Chemours also provided broad indemnification to DuPont in connection with these liabilities, which is uncapped and does not have a survival period.
- 181. The effect of creation of Chemours was to segregate a large portion of DuPont's environmental liabilities, including liabilities related to its PFAS chemicals and products.
- 182. The consolidation of DuPont's performance chemical liabilities has potentially limited the availability of funds arising out of DuPont's liability.
- 183. As Chemours explained in its November 2016 SEC filing: "[s]ignificant unfavorable outcomes in a number of cases in the [Ohio] MDL could have a material adverse effect on Chemours consolidated financial position, results of operations or liquidity."
- 184. At the time of the transfer of its Performance Chemicals Business to Chemours, DuPont had been sued, threatened with suit and/or had knowledge of the likelihood of litigation to be filed regarding DuPont's liability for damages and injuries from the manufacture of PFAS compounds and products that contain PFAS compounds.
- 185. Plaintiffs' water supply has been, and continue to be, contaminated in varying amounts over time, as a result of Defendants' AFFF containing PFAS and/or PFAS surfactants for use in AFFF, causing Plaintiffs significant injury and damage.

C. AFFF Use at the Willow Grove and Warminster Bases

- 186. At any given time during their operation, the Bases housed and used thousands of gallons of AFFF concentrate manufactured by Defendants, stored in buckets, drums, tanks, tankers, crash trucks and sprinkler systems.
- 187. U.S. Navy, Air National Guard, Marines, and Air Force (collectively referred to as "Military") personnel, as well as civilian firefighters, conducted training exercises at the Willow Grove and Warminster Bases.
- 188. In part, the Military and civilian firefighters engaged in firefighting, explosion training, and sprinkler system testing that required the use of AFFF.
 - 189. For decades, firefighting training activities took place at the two military bases.
- 190. Each site also possessed and maintained aircraft hangars protected by ceiling units holding hundreds of gallons of AFFF.
- 191. The use of AFFF for training purposes included suppressing fires and explosions on the ground, clearing hoses, as well as coating runways in anticipation of difficult landings, all of which resulted in acres of foam-covered soil and blanketed wreckages.
- 192. Defendants' instructions and warning labels affixed to AFFF did not adequately describe the scope of danger associated with storage, use, clean up, and disposal of AFFF, or the procedures necessary for the safe storage, use, clean up, and disposal of AFFF.
- 193. Defendants were aware of the health risks associated with use, disposal and bioaccumulation of AFFF components, but, upon information and belief, did not warn the users of the AFFF and/or PFAS for use in AFFF.
- 194. Defendants were aware of the health risks of introducing AFFF and/or PFAS for use in AFFF into the environment, but, upon information and belief, did not warn the users of the AFFF.

- 195. Upon information and belief, at no time during the relevant period did the Defendants warn users of the AFFF that ingredients in the AFFF were persistent, bioaccumulative, and toxic, or that, once introduced into the environment, its chemical components would readily mix with ground and surface water and migrate off the Bases, contaminating the drinking water of the surrounding communities, and exposing tens of thousands of innocent people, including Plaintiffs, to water contaminated by their products.
- 196. Further, even though 3M ceased production of PFOS-based AFFF in 2002, neither 3M nor any other Defendant that manufactured, sold, distributed and/or redistributed a Toxic Surfactant-based AFFF or AFFF components recalled its dangerous products.

D. The Discovery of Toxic Chemicals in Plaintiffs' Drinking Water

- 197. Prior to 2012, municipal water providers were not required to test their drinking water for the presence of PFOS or PFOA, and tests for PFOS and PFOA were rare.
- 198. In 2012, EPA included PFOS and PFOA in its Third Unregulated Contaminant Monitoring Rule ("UCRM3"), which required certain water providers across the country, including those in Horsham, Warminster and Warrington, to test their water for the presence of PFOS and PFOA.
- 199. Before listing PFOS and PFOA on its UCRM3, EPA had included the chemicals on its 2009 "Contaminant Candidate List," a list of contaminants that at the time were not subject to any proposed or promulgated national primary drinking water regulations, but were suspected to be found in public water systems, and may require regulation under the Safe Drinking Water Act. The Safe Drinking Water Act requires EPA to publish the Contaminant Candidate List every five years.

- 200. In 2009, in response to a contaminated site in Alabama, EPA's Office of Water also had issued a provisional health advisory of 200 parts per trillion (ppt) for PFOS and 400 ppt of PFOA. EPA advised that water found to contain PFOS and PFOA above these levels should not continue to be used for drinking and cooking—but since most water providers were not even testing for these chemicals, the public remained largely unaware that these chemicals existed.
- 201. Beginning in and around 2014, the water providers in the vicinity of the Bases began testing wells in accordance with UCMR3.
- 202. In 2014, the Horsham Water and Sewer Authority tested its municipal wells in accordance with UCMR3. The testing showed that two of its wells were contaminated with PFOS above the provisional health advisory level of 200 ppt.
- 203. Between November 2013 and June 2014, the Warminster Municipal Authority also tested its wells in compliance with UCMR3. The testing showed PFOS levels of 40 ppt to 1090 ppt and PFOA levels of 20 ppt to 890 ppt.
- 204. Warrington Township also participated in UCMR3 during 2014 and 2015. Its testing showed PFOS levels as high as 1600 ppt and PFOA levels up to 270 ppt.
- 205. The discovery of contaminated municipal drinking water wells at levels above the preliminary health advisory led the EPA to begin testing private wells in the vicinity of the Bases.
- 206. In May 2016, the EPA replaced its preliminary health advisory with a Lifetime Health Advisory of 70 ppt for PFOS and 70 ppt of PFOA. In addition, where both PFOS and PFOA are present, the combined Health Advisory limit is also 70 ppt.
- 207. The Horsham, Warminster and Warrington water authorities had stopped using wells that tested above the EPA's preliminary health advisory of levels of 200 ppt for PFOS and 400 ppt of PFOA—but after EPA issued Lifetime Health Advisory of 70 ppt for PFOS and 70 ppt

of PFOA and combined limit of 70 ppt, the water authorities had to reassess the scope of the problem.

- 208. After EPA's issuance of the May 2016 Lifetime Health Advisory, the Horsham, Warminster and Warrington water authorities took even more wells out of service, and even more private well owners were advised that their drinking water was now considered unsafe.
- 209. As a result of the EPA issuing its final Lifetime Health Advisories for PFOS and PFOA, current and former residents, including Plaintiffs, began to learn that their water was and had been contaminated with dangerous levels of PFOS and PFOA.
- 210. Since EPA issued its Health Advisory for Lifetime Exposure, a number of states, including New Jersey, California, New Hampshire, and Vermont, and other agencies have suggested or promulgated their own Maximum Concentration Levels ("MCLs") limiting exposure to even lower levels of PFOS and PFOA. For example, the State of New York has proposed standards for PFOA and PFOS at 10 ppt.
- 211. While residing in Horsham and Hatboro, Plaintiff obtained drank water provided by the municipal water providers.
- 212. Plaintiffs subsequently learned of the adverse health impact associated with exposure to PFOA and/or PFOA, including, specifically, the link between exposure and ulcerative colitis.
- 213. Plaintiffs have since learned that the source of the contamination is the use of AFFF at the Bases and the resulting release of the chemical into the environment, that the Defendants were the only manufacturers of AFFF and/or PFAS for use in AFFF, and that exposure to Defendants' chemicals caused Plaintiff Peter Cantagallo's injuries.

214. As set forth herein, Defendants knowingly manufactured, sold, and distributed dangerous and defective AFFF and/or PFAS for use in AFFF, failed to provide proper warnings to protect bystanders, such as the Plaintiff, and failed to recall their products when they took them off the market.

E. AFFF-containing PFOA and PFOS Is Fungible and Commingled in the Groundwater

- 215. AFFF-containing PFCs, including PFOA and/or PFOS, once it has been released to the environment and groundwater, lacks characteristics that would enable identification of the company that manufactured that particular AFFF. Typically, the release into the environment does not arise from a single event, but rather from repeated uses over a number of years.
- 216. The process of manufacture and distribution of AFFF, including that which contains PFOA and/or PFOS, sometimes includes complex arrangements whereby Defendants sell product for delivery through specific military bases and/or third-party logistic intermediaries throughout the country.
- 217. A subsurface plume, even if it comes from a single location, such as a fire training area, most likely originates from mixed batches of AFFF coming from different manufacturers and different producers of PFAS.
- 218. There were most likely several areas located around the Bases where firefighting exercises were historically conducted and where AFFF was used and entered the groundwater and it is not possible to determine the identity of the manufacturer whose AFFF-containing PFOA and PFOS and/or PFAS for use in AFFF contributed to the groundwater contamination impacting Plaintiffs' water supply.
- 219. Because precise identification of the specific manufacturer of any given AFFF that was the source of PFOA and PFOS found in Plaintiffs' supply wells is impossible, Plaintiffs must

pursue all Defendants, jointly and severally, for those indivisible injuries which Defendants have caused Plaintiffs to suffer.

- 220. Defendants are also jointly and severally liable because they conspired to conceal the true toxic nature of PFCs, including PFOS and PFOA, to profit from the use of AFFF-containing PFOA and PFOS, at Plaintiffs' expense, to foreseeably contaminate Plaintiffs' water supplies, and to attempt to avoid liability for such contamination of the groundwater.
- 221. Enterprise liability attaches to all Defendants and the liability of each should be assigned according to its percentage of liability for AFFF-containing PFOA and/or PFOS and/or PFAS for use in AFFF at issue in this Complaint. Each of these Defendants participated in a state-wide and national market for AFFF containing PFOA and/or PFOS and/or PFAS surfactants for use in AFFF during the relevant time.
- 222. Concert of action liability attaches to all Defendants, each of which participated in a common plan to commit the torts alleged herein and each of which acted tortiously in pursuance of the common plan to knowingly manufacture and sell inherently dangerous AFFF-containing PFOA and/or PFOS and/or PFAS surfactant for use in AFFF.
- 223. Enterprise liability attaches to all of the named Defendants for placing defective products into the stream of commerce.

TOLLING OF THE STATUTE OF LIMITATIONS

Discovery Rule Tolling

- 224. Plaintiffs incorporate by reference all preceding paragraphs as if fully set forth herein.
- 225. Plaintiffs had no way of knowing about the risks of serious illness associated with the use of Defendants' AFFF and/or PFAS for use in AFFF until they were made aware that Peter

Cantagallo's illness could be caused by the use of Defendants' products at the nearby Bases. Consequently, the discovery rule applies to this case, and the statute of limitations has been tolled until the day that Plaintiffs knew or had reason to know that Peter Cantagallo's illness was linked to the use of Defendants' products at the nearby Bases.

- 226. Within the time period of any applicable statute of limitations, Plaintiffs could not have discovered, through the exercise of reasonable diligence, that they were exposed to PFAS and that PFAS is injurious to human health.
- 227. Plaintiffs did not discover, and did not know facts that would cause a reasonable person to suspect, the risks associated with the use of and/or exposure to PFAS; nor would a reasonable and diligent investigation by them have disclosed that AFFF used at the Bases would have contaminated Plaintiffs' water supply and caused their injury.
- 228. For these reasons, all applicable statutes of limitations have been tolled by operation of the discovery rule with respect to Plaintiffs' claims.

Fraudulent Concealment

- 229. Furthermore, the running of the statute of limitations has been equitably tolled by reason of Defendants' fraudulent concealment and conduct, as alleged above. Through their affirmative misrepresentations and omissions, Defendants actively concealed the true risks associated with use of or exposure to their products.
- 230. As a result of Defendants' actions, Plaintiffs were unaware, and could not reasonably know or have learned through reasonable diligence, that Plaintiffs had been exposed to the risks alleged herein and that those risks were the direct and proximate result of Defendants' acts and omissions.

231. Defendants are estopped from relying on any statute of limitations because of their concealment of the truth regarding the safety of AFFF and or PFAS for use in AFFF. Defendants were under a duty to disclose the true character, quality and nature of AFFF and its PFAS components, including that they may cause adverse health impacts, contaminate public water supplies, particularly in the vicinity of military bases where it is heavily used, and accumulate in the body and environment over time, because this was non-public information over which they had exclusive control. Defendants knew this information was not available to Plaintiffs, their medical providers and/or their health facilities, yet they failed to disclose this information to the public.

Estoppel

- 232. Defendants were under a continuous duty to disclose to consumers, users and other persons coming into contact with their products accurate safety information concerning their products and the risks associated with the use of and/or exposure to PFAS.
- 233. Instead, Defendants knowingly, affirmatively, and actively concealed safety information concerning PFAS and AFFF and the serious risks associated with the use of and/or exposure to their products.
- 234. Based on the foregoing, Defendants are estopped from relying on any statutes of limitations in defense of this action.

CAUSES OF ACTION

FIRST CAUSE OF ACTION

Defective Product - Failure to Warn

235. Plaintiffs hereby incorporate by reference the allegations contained in the preceding paragraphs of this Complaint as if they were set forth at length herein.

- 236. At all times relevant, Defendants were in the business of, among other things, manufacturing, selling, or otherwise distributing AFFF and/or PFAS for use in AFFF.
- 237. As manufacturers, sellers, or distributors of a commercial product, the Defendants had a duty to warn of the risks associated with the reasonably foreseeable uses of their products.
- 238. As manufacturers, sellers, or distributors of a commercial product, the Defendants had a duty to provide reasonable instructions on the proper and safe use, storage and disposal of their AFFF and/or PFAS for use in AFFF.
- 239. Defendants, as manufacturers, sellers, and distributors of AFFF and/or PFAS for use in AFFF placed into the stream of commerce, are guarantors of their AFFF and/or PFAS for use in AFFF.
- 240. Defendants knew or should have known that the Toxic Surfactants contained in their AFFF and/or PFAS for use in AFFF were toxic and carcinogenic and could lead those exposed to these toxic chemicals and/or or their breakdown products to develop serious medical conditions.
- 241. Defendants knew or should have known that the foreseeable storage, use and disposal of the AFFF and/or PFAS for use in AFFF that they manufactured, sold, and distributed had the capacity to enter the water supply, to persist there for decades, and to cause harm to human health and the environment.
- 242. Defendants' AFFF and/or PFAS for use in AFFF was unreasonably dangerous because it was far more dangerous than an ordinary consumer would expect when used, as designed, in its intended or reasonably foreseeable manner.

- 243. These risks were not obvious to users of the AFFF, nor were they obvious to residents in the vicinity of the AFFF use, including Plaintiffs, who were unwittingly exposed to Defendants' toxic and carcinogenic chemicals in their drinking water.
- 244. Plaintiffs could not have reasonably discovered the defects and risks associated with the use of AFFF and/or PFAS for use in AFFF.
- 245. Plaintiffs could not protect themselves from exposure to Defendants' AFFF and/or PFAS for use in AFFF that contains toxic and carcinogenic chemicals.
- 246. The Defendants failed to provide warnings to the users that use of Defendants' AFFF and/or PFAS for use in AFFF could result in the contamination of groundwater and, ultimately, drinking water supplies.
- 247. The Defendants failed to provide warnings to the users of the dangers to human health and the environment if their AFFF and/or PFAS for use in AFFF was permitted to contaminate the groundwater or drinking water supply.
- 248. Defendants knew or should have known that the minimal warnings disseminated with their AFFF and/or PFAS for use in AFFF were inadequate.
- 249. At all times relevant to this litigation, Defendants' AFFF and/or PFAS for use in AFFF reached its intended consumers and users without substantial change in its condition as designed, manufactured, sold, distributed, labeled and marketed by Defendants.
- 250. Adequate instructions and warnings would have reduced or avoided the foreseeable risks of harm posed by the AFFF and/or PFAS for use in AFFF.
- 251. Had Defendants provided adequate instructions and warnings, the contamination of the groundwater, surface water, and drinking water supply with toxic and carcinogenic chemicals would not have occurred.

- 252. As a direct and proximate result of Defendants' failure to warn against the likelihood of contamination from their AFFF and/or PFAS for use in AFFF, the groundwater and drinking water on and around the Bases became contaminated with PFOS and PFOA.
- 253. As a direct and proximate result of Defendants' failure to warn of the environmental and health impacts caused by their AFFF and/or PFAS for use in AFFF, the drinking water supplies on and around the Bases became contaminated with PFOS and PFOA and have caused personal injury to Plaintiffs, as described above.
- 254. Defendants' failure to provide adequate warnings and instructions renders Defendants' AFFF and/or PFAS for use in AFFF unreasonably dangerous and defective products.
- 255. As a result of Defendants' manufacture, sale, or distribution of a defective product, Defendants are strictly liable in damages to the Plaintiffs.
- 256. As a direct and proximate result of Defendants' placing their defective products into the stream of commerce and failing to warn consumers and users of their products of the near certainty of environmental contamination and the increased risk of ulcerative colitis and other medical conditions associated with exposure to PFOS and PFOA as described herein, Plaintiff Peter Cantagallo has developed ulcerative colitis; has been injured catastrophically; and has been caused severe and permanent pain, suffering, disability, impairment, loss of enjoyment of life, and loss of comfort.
- 257. Plaintiff Peter Cantagallo will continue to suffer as a result of this condition in the future.
- 258. Plaintiff Peter Cantagallo has incurred and will continue to incur medical costs in the future.

259. Defendants' distribution of their defective products, despite their knowledge of the defects, including the increased risks of widespread contamination of the groundwater, surface water, and drinking water supplies with toxic and carcinogenic chemicals and the risks to the unsuspecting residents in surrounding areas, such as Plaintiffs, among other reasons, demonstrates that Defendants' conduct was willful, wanton or reckless, and undertaken with a reckless indifference to the rights of Plaintiffs.

WHEREFORE, Plaintiffs respectfully requests that the Court enter judgment in their favor for compensatory and punitive damages, together with delay damages, costs herein incurred, attorneys' fees, and all such other and further relief that this Court deems just and proper.

SECOND CAUSE OF ACTION

Defective Product - Design Defect (Consumer Expectations)

- 260. Plaintiffs hereby incorporate by reference the allegations contained in the preceding paragraphs of this Complaint as if they were set forth at length herein.
- 261. At all times relevant, Defendants were in the business of, among other things, manufacturing, selling, or otherwise distributing AFFF and/or PFAS for use in AFFF.
- 262. As manufacturers, sellers, or distributors, Defendants had a duty to make and/or market AFFF and/or PFAS for use in AFFF that was free from a defective condition unreasonably dangerous to persons that foreseeably would come into contact with it.
- 263. Defendants breached that duty because the AFFF and/or PFAS for use in AFFF that they manufactured, sold or distributed was dangerous to an extent beyond that contemplated by an ordinary consumer when used in its intended and reasonably foreseeable manner.

- 264. Defendants, as manufacturers, sellers, and distributors of AFFF and/or PFAS for use in AFFF placed into the stream of commerce, are guarantors of their AFFF and/or PFAS for use in AFFF.
- 265. Defendants knew or should have known that the Toxic Surfactants contained in their AFFF and/or PFAS for use in AFFF was toxic and carcinogenic and could lead those exposed to these toxic chemicals and/or or their breakdown products to develop serious medical conditions.
- 266. Defendants knew or should have known that the foreseeable storage, use and disposal of the AFFF and/or PFAS for use in AFFF that they manufactured, sold, and distributed had the capacity to enter the water supply, to persist there for decades, and to cause harm to human health and the environment.
- 267. Defendants' AFFF and/or PFAS for use in AFFF was far more dangerous than an ordinary user and/or consumer would expect when used, as designed, in its intended or reasonably foreseeable manner.
- 268. Defendants' AFFF and/or PFAS for use in AFFF was, therefore, unreasonably dangerous.
- 269. The risks of AFFF and/or PFAS for use in AFFF were not obvious to users of the AFFF, nor were they obvious to residents in the vicinity of the AFFF use, including Plaintiff, who were unwittingly exposed to Defendants' toxic and carcinogenic chemicals in their drinking water.
- 270. Plaintiffs could not have reasonably discovered the defects and risks associated with the use of AFFF and/or PFAS for use in AFFF.
- 271. Plaintiffs could not protect themselves from exposure to Defendants' toxic and carcinogenic chemicals.

- 272. The Defendants' AFFF and/or PFAS for use in AFFF was in a defective condition unreasonably dangerous because it was dangerous to an extent beyond that contemplated by an ordinary user and/or consumer when used in its intended and reasonably foreseeable manner.
 - 273. Defendants' AFFF and/or PFAS for use in AFFF was, therefore, defective.
- 274. It was foreseeable that toxic chemicals from the AFFF and/or PFAS for use in AFFF that Defendants manufactured, sold and distributed would enter the water supply of the Plaintiffs and cause harm to their persons.
- 275. As a result of Defendants' manufacture, sale or distribution of a defectively designed product, Plaintiffs' drinking water supply became contaminated with dangerous and toxic chemicals and caused damage to them.
- 276. As a result of Defendants' manufacture, sale, or distribution of a defective product, Defendants are strictly liable in damages to the Plaintiffs.
- 277. As a direct and proximate result of Defendants' manufacture, sale or distribution of a defective product, the drinking water supplies in and around the Bases became contaminated with PFOS and PFOA and have caused personal injury to Plaintiff as described above.
- 278. As a direct and proximate result of Defendants' placing their defective products into the stream of commerce and failing to warn consumers and users of their products of the near certainty of environmental contamination and the increased risk of ulcerative colitis; and other medical conditions associated with exposure to PFOS and PFOA as described herein, Plaintiff Peter Cantagallo has developed ulcerative colitis; has been injured catastrophically; and has been caused severe and permanent pain, suffering, disability, impairment, loss of enjoyment of life, and loss of comfort.

- 279. Plaintiff Peter Cantagallo will continue to suffer as a result of his condition in the future.
- 280. Plaintiff Peter Cantagallo has incurred and will continue to incur medical costs in the future.
- 281. Defendants' distribution of their defective products, despite their knowledge of the defects, including the increased risks of widespread contamination of the groundwater, surface water, and drinking water supplies with toxic and carcinogenic chemicals and the risks to the unsuspecting residents in surrounding areas, such as Plaintiffs, among other reasons, demonstrates that Defendants' conduct was willful, wanton or reckless, and undertaken with a reckless indifference to the rights of Plaintiffs.

WHEREFORE, Plaintiffs respectfully requests that the Court enter judgment in their favor for compensatory and punitive damages, together with delay damages, costs herein incurred, attorneys' fees, and all such other and further relief that this Court deems just and proper.

THIRD CAUSE OF ACTION

Defective Product - Design Defect (Risk-Utility)

- 282. Plaintiffs hereby incorporate by reference the allegations contained in the preceding paragraphs of this Complaint as if they were set forth at length herein.
- 283. At all times relevant, Defendants were in the business of, among other things, manufacturing, selling, or otherwise distributing AFFF and/or PFAS for use in AFFF.
- 284. As manufacturers, sellers, or distributors, Defendants had a duty to make and/or market AFFF and/or PFAS for use in AFFF that was free from a defective condition unreasonably dangerous to persons that foreseeably would come into contact with it.

- 285. Defendants' AFFF and/or PFAS for use in AFFF was defectively designed and manufactured when it left the hands of Defendants, such that the foreseeable risks associated with the use, storage, and disposal of the AFFF exceeded the alleged benefits associated with its design and formulation.
- 286. At all relevant times, Defendants' AFFF and/or PFAS for use in AFFF created significant risks to the environment and to human health, including Plaintiffs' health, which far outweighed its utility.
- 287. It was foreseeable that toxic chemicals from the AFFF and/or PFAS for use in AFFF that Defendants manufactured, sold and distributed would enter the water supply of the Plaintiffs and cause them harm.
- 288. As a result of Defendants' manufacture, sale or distribution of a defectively designed product, Plaintiffs' drinking water supply became contaminated with dangerous and toxic chemicals and damaged Plaintiffs.
- 289. Alternative designs of AFFF and/or PFAS for use in AFFF were available, technologically feasible and practical, and would have reduced or prevented the harm to Plaintiff.
- 290. For example, all of the Defendants, except for 3M, developed alternative formulations of AFFF and/or PFAS for use in AFFF that do not contain long-chain Toxic Surfactants, which these Defendants claim are as effective as their prior formulations, but are safer for human health and the environment.
- 291. Upon information and belief, Defendants' current formulations were technologically feasible during the relevant period.
- 292. A reasonable alternative design would, at a reasonable cost, have reduced or eliminated the foreseeable risks of harm posed by AFFF and/or PFAS for use in AFFF.

- 293. The AFFF and/or PFAS for use in AFFF manufactured, sold, or distributed by the Defendants was defective in design because the foreseeable risk of harm posed by the AFFF and/or PFAS for use in AFFF could have been reduced or eliminated by the adoption of a reasonable alternative design.
- 294. At all times relevant to this litigation, Defendants' AFFF and/or PFAS for use in AFFF reached its intended consumers and users without substantial change in its condition as designed, manufactured, sold, distributed, labeled and marketed by Defendants.
- 295. As a direct and proximate result of Defendants' placing their defective products into the stream of commerce and failing to warn consumers and users of their products of the near certainty of environmental contamination and the increased risk of ulcerative colitis and other medical conditions associated with exposure to PFOS and PFOA as described herein, Plaintiff Peter Cantagallo has developed ulcerative colitis; has been injured catastrophically; and has been caused severe and permanent pain, suffering, disability, impairment, loss of enjoyment of life, and loss of comfort.
- 296. Plaintiff Peter Cantagallo will continue to suffer as a result of this condition in the future.
- 297. Plaintiff Peter Cantagallo has incurred and will continue to incur medical costs in the future.
- 298. As a result of Defendants' manufacture, sale and distribution of a defective product, Defendants are strictly liable in damages to the Plaintiffs.
- 299. Defendants' distribution of their defective products, despite their knowledge of the defects, including the increased risks of widespread contamination of the groundwater, surface water, and drinking water supplies with toxic and carcinogenic chemicals and the risks to the

unsuspecting residents in the surrounding areas, such as Plaintiffs, among other reasons, demonstrates that Defendants' conduct was willful, wanton or reckless, and undertaken with a reckless indifference to the rights of Plaintiffs.

WHEREFORE, Plaintiffs respectfully request that the Court enter judgment in their favor for compensatory and punitive damages, together with delay damages, costs herein incurred, attorneys' fees, and all such other and further relief that this Court deems just and proper.

FOURTH CAUSE OF ACTION

Negligence

- 300. Plaintiffs hereby incorporate by reference the allegations contained in the preceding paragraphs of this Complaint as if they were set forth at length herein.
- 301. The Defendants had a duty to manufacture, market, and sell their AFFF and/or PFAS for use in AFFF in a manner that avoided harm to those who foreseeably would come into contact with it.
- 302. Defendants knew or should have known that the manufacture of AFFF and/or PFAS for use in AFFF containing Toxic Surfactants was hazardous to human health and the environment.
- 303. Defendants further knew or should have known that it was unsafe and/or unreasonably dangerous to manufacture AFFF and/or PFAS for use in AFFF using Toxic Surfactants because it was a near certainty that the chemicals would migrate off of the Bases and contaminate the ground water and drinking water supply in the surrounding areas.
- 304. Defendants knew or should have known that the Toxic Surfactants used in the manufacture of their AFFF and/or PFAS for use in AFFF do not degrade, remain in the environment for decades, and bioaccumulate, thereby creating a potential health risk that could last for many years.

- 305. The Plaintiffs were foreseeable victims of the harm caused by Defendants' AFFF and/or PFAS manufactured for use in AFFF.
- 306. As a result of Defendants' breach of their legal duties, the drinking water in and around the Bases, including Plaintiffs' drinking water supply, became contaminated with unsafe levels of PFOS and PFOA.
- 307. As a result of Defendants' negligent, reckless and/or intentional acts and omissions alleged herein, Plaintiffs' drinking water supply became contaminated with PFOS and PFOA.
- 308. As a direct and proximate result of Defendants' negligence, Plaintiff Peter Cantagallo has developed ulcerative colitis; has been injured catastrophically; and has been caused severe and permanent pain, suffering, disability, impairment, loss of enjoyment of life, and loss of comfort.
- 309. Plaintiff Peter Cantagallo will continue to suffer a result of his condition in the future.
- 310. Plaintiff Peter Cantagallo has incurred and will continue to incur medical costs in the future.
- 311. Defendants' manufacture, marketing, and sale of AFFF, despite their knowledge of the risks of widespread contamination of the groundwater, surface water, and drinking water supplies with toxic and carcinogenic chemicals and the risks to the unsuspecting residents in the surrounding areas, including Plaintiffs, among other reasons, demonstrates that Defendants' conduct was willful, wanton or reckless, and undertaken with a reckless indifference to the rights of Plaintiffs.

WHEREFORE, Plaintiffs respectfully request that the Court enter judgment in their favor for compensatory and punitive damages, together with delay damages, costs herein incurred, attorneys' fees, and all such other and further relief that this Court deems just and proper.

FIFTH CAUSE OF ACTION

Loss of Consortium

- 312. Plaintiffs hereby incorporate by reference the allegations contained in the preceding paragraphs of this Complaint as if they were set forth at length herein.
 - 313. Plaintiff Joanne Cantagallo asserts this claim for loss of consortium.
- 314. Plaintiff Peter Cantagallo was at all times relevant to this Complaint, the wife of Plaintiff Joanne Cantagallo.
- 315. As a direct and proximate result of the Defendants' conduct outlined herein, Plaintiff Joanne Cantagallo suffered and will continue to suffer a loss of consortium with her husband Plaintiff Peter Cantagallo, including but not limited to a loss of services, household labor, society, companionship, aid of the other in the marital relationship, affection and other related damages.

WHEREFORE, Plaintiffs respectfully request that the Court enter judgment in their favor for compensatory and punitive damages, together with delay damages, costs herein incurred, attorneys' fees, and all such other and further relief that this Court deems just and proper.

SIXTH CAUSE OF ACTION

Violation of Voidable Transactions Act

- (E. I. du Pont de Nemours and Company, The Chemours Company, The Chemours Company FC, LLC, Corteva, Inc., and DuPont de Nemours, Inc.)
- 316. Plaintiffs hereby incorporate by reference the allegations contained in the preceding paragraphs of this Complaint as if they were set forth at length herein.

- 317. Plaintiffs seek equitable and other relief pursuant to the Voidable Transaction Act ("VTA"), as adopted by the Commonwealth of Pennsylvania, against E. I. du Pont de Nemours and Company, The Chemours Company, The Chemours Company FC, LLC, Corteva, Inc., and DuPont de Nemours, Inc. (collectively the VTA Defendants). *See* 12 Pa. Stat. and Cons. Stat. Ann. § 5101, *et seq*.
- 318. Under the VTA: "[a] transfer made or obligation incurred by a debtor is voidable as to a creditor, whether the creditor's claim arose before or after the transfer was made or the obligation was incurred, if the debtor made the transfer or incurred the obligation: (1) with actual intent to hinder, delay, or defraud any creditor or the debtor; or (2) without receiving a reasonably equivalent value in exchange for the transfer or obligation, and the debtor: (i) was engaged or was about to engage in a business or a transaction for which the remaining assets of the debtor were unreasonably small in relation to the business or transaction; or (ii) intended to incur, or believed or reasonably should have believed that the debtor would incur, debts beyond the debtor's ability to pay as they became due." 12 Pa. Stat. and Cons. Stat. Ann. § 5104(a).
- 319. The VTA Defendants have (a) acted with actual intent to hinder, delay and defraud parties, and/or (b) without receiving a reasonably equivalent value in exchange for the transfer or obligation, and (i) were engaged or were about to engage in a business for which the remaining assets of The Chemours Company were unreasonably small in relation to the business; or (ii) intended to incur, or believed or reasonably should have believed that The Chemours Company would incur, debts beyond its ability to pay as they became due.
- 320. VTA Defendants engaged in acts in furtherance of a scheme to transfer E. I. du Pont de Nemours and Company's assets out of the reach of parties such as Plaintiffs that have been

damaged as a result of the VTA Defendants' conduct, omissions, and actions described in this Complaint.

- 321. It is primarily E. I. du Pont de Nemours and Company, rather than The Chemours Company, that for decades manufactured, marketed, distributed and/or sold AFFF containing PFAS and PFAS for use in AFFF with the superior knowledge that they were toxic, mobile, persistent, bioaccumulative, and biomagnifying, and through normal and foreseen use, would contaminate the Plaintiffs' drinking water supply and injure the Plaintiffs.
- 322. As a result of the transfer of assets and liabilities described in this Complaint, the VTA Defendants have attempted to limit the availability of assets to cover judgments for all of the liability for damages and injuries from the manufacturing, marketing, distribution and/or sale of AFFF containing PFAS and PFAS for use in AFFF.
- 323. At the time of the transfer of its Performance Chemicals Business to The Chemours Company, E. I. du Pont de Nemours and Company had been sued, threatened with suit and/or had knowledge of the likelihood of litigation to be filed regarding DuPont's liability for damages and injuries from the manufacturing, marketing, distribution and/or sale of AFFF containing PFAS and/or PFAS compounds for use in AFFF.
- 324. The VTA Defendants acted without receiving a reasonably equivalent value in exchange for the transfer or obligation, and E. I. du Pont de Nemours and Company believed or reasonably should have believed that The Chemours Company would incur debts beyond The Chemours Company's ability to pay as they became due.
- 325. At all times relevant to this action, the claims, judgment and potential judgments against The Chemours Company potentially exceed The Chemours Company's ability to pay.

- 326. Pursuant to 12 Pa. Stat. and Cons. Stat. Ann. § 5104(a), Plaintiffs seeks avoidance of the transfer of E. I. du Pont de Nemours and Company's liabilities for the claims brought in this Complaint and to the VTA Defendants liable for any damages or other remedies that may be awarded by the Court or jury under this Complaint.
- 327. Plaintiffs further seeks all other rights and remedies that may be available to them under VTA, including prejudgment remedies as available under applicable law, as may be necessary to fully compensate Plaintiffs for the damages and injuries they have suffered as alleged in this Complaint.

DAMAGES

- 328. Plaintiffs hereby incorporate by reference the allegations contained in the preceding paragraphs of this Complaint as if they were set forth at length herein.
- 329. Plaintiffs seeks monetary damages for each violation of the Claims for Relief. In particular, Plaintiffs seek monetary damages:
 - (i) to compensate Plaintiff Peter Cantagallo for the pain and suffering caused by the personal injuries detailed above;
 - (ii) to compensate Plaintiff Peter Cantagallo for the medical costs and expenses reasonably anticipated to accrue in the future;
 - (iii) to compensate Plaintiff Joanne Cantagallo for loss of consortium;
 - (iv) for such other monetary damages as are required to fully compensate Plaintiffs for the losses they have and will continue to suffer as a result of Defendants' conduct; and
 - (v) delay damages, including pre-judgment and post-judgment interest according to law.

330. Plaintiffs further seeks an order that Plaintiffs are entitled to avoid the transfer of

E. I. du Pont de Nemours and Company's liabilities to The Chemours Company and put the

Plaintiffs in the position they would have been had the transfer not occurred.

331. Plaintiffs seek punitive damages in an amount sufficient to deter Defendants'

similar wrongful conduct in the future.

PRAYER FOR RELIEF

WHEREFORE, Plaintiffs requests the Court to enter judgment against the Defendants, as

follows:

A. An award to Plaintiffs of compensatory and punitive damages in an amount to be

proven at trial;

B. An award of attorneys' fees and costs;

C. Delay damages, including an award of pre-judgment and post-judgment interest, as

provided by law; and

D. Such other and further relief as the Court deems just and proper.

Dated: February 4, 2020

s/ Nancy M. Christensen

Nancy M. Christensen

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